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- (71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): FIROOZNIA, Farlborz [US/US]; 17 Madison Avenue, Apt. 45, Madison, NJ 07940 (US).

- (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectuel Property, CH-4002 Basel (CH).
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WO 2004/046145

(54) Title: IMIDAZO[1, 5A]PYRIDINE DERIVATIVES AND METHODS FOR TREATING ALDOSTERONE MEDIATED DIS-EASES

$$R_3$$
 $R_2$ 
 $N$ 
 $N$ 
(I)

(57) Abstract: Compounds of the formula (I) provide pharmacological agents which are inhibitors of the P450 enzyme, aldosterone synthase, and thus may be employed for the treatment of aldosterone mediated conditions. Accordingly, the compounds of formula (I) may be employed for prevention, delay of progression, or treatment of hypokalemia, hypertension, congestive heart failure, renal failure, in particular, chronic renal failure, restenosis, atherosclerosis, syndrome X, obesity, nephropathy, postmyocardial infarction, coronary heart diseases, increased formation of collagen, fibrosis and remodeling following hypertension and endothelial dysfunction. Preferred are the compounds of formula (I) which are selective inhibitors of aldosterone synthase devoid of undesirable side effects due to general inhibition of cytochrome P450 enzymes.



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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07D471/04 A61P9/00									
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B. FIELDS									
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched									
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) PAJ, WPI Data, EPO-Internal, CHEM ABS Data									
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT								
Category *		Relevant to claim No.							
X	US 4 588 732 A (BROWNE LESLIE J) 13 May 1986 (1986-05-13) claim 18; examples 3,4,7-10	1-5, 14-16							
х	US 4 617 307 A (BROWNE LESLIE J) 14 October 1986 (1986-10-14) examples 3, 3d, 3e,3f,5 claims	1-5, 14-16							
A	US 6 037 349 A (SOMBROEK JOHANNES 14 March 2000 (2000-03-14) column 2, line 37 -column 2, line claims 1-13; examples 1-17		1-21						
Further documents are listed in the continuation of box C.    X   Patent family members are listed in annex.									
"A" docum consider "E" earlier filling of "L" docum which citatio "O" docum other "P" docum later t	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the International date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) enter ferring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but	or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone of the considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  '8' document member of the same patent family  Date of mailing of the international search report							
9 March 2004 22/03/2004									
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2	Authorized office	r .						
	NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Schmid	, A						



International application No. PCT/EP 03/12851

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet) This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: Although claims 9-13 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet) This international Searching Authority found multiple inventions in this international application, as follows: As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

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